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10/566,277	01/30/2006	Toshihiro Kasai	285127US0PCT	5672
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER REDDY, KARUNA P	
			ART UNIT	PAPER NUMBER
			1713	
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			10/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/566,277	Applicant(s) KASAI ET AL.	
	Examiner Karuna P. Reddy	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 7-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/24/2006, 7/21/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-6 in the reply filed on August 24, 2007 is acknowledged. The traversal is on the ground(s) that "the Office has **not** applied the same standard of unity of invention as the International Preliminary Examination Authority since the Authority did not take the position that unity of invention was lacking in the International Preliminary Examination Report". This is **not** found persuasive since a finding of lack of unity can be made at any stage of prosecution. Because lack of unity was not indicated in the first stage of prosecution **does** not preclude a finding of lack of unity in any later stage. The standards and support for the finding of lack of unity are consistent with the guidelines of International Authority, as stated in the written restriction.

Applicant also traversed on the grounds that the Examiner has not provided any references or examples to support the allegation other methods can be used to make the final product. In contrast, Examiner has provided a reference to indicate that the two-pack composition is not novel in light of the "X" reference of International Search Report (EP 0 552 469). Therefore, the novelty of the instant invention appears to be the method of using the two-pack composition.

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Applicant further alleges that the common significance that is shared by all the claims is the two-pack plastisol composition and its use thereof.

Furthermore, the technical relationship that involves the same feature should be taken as a whole. This is not found persuasive for reason already stated in the written restriction. There is no requirement for the Examiner to find a separate unique technical feature for each group. The requirement is to find the basic common technical feature. In this case, the technical feature which link the groups is the two-pack composition, which is not a "special" technical feature for reasons already stated above and in the written restriction, since it is already well known in the art.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 7-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Claim Objections

3. Claims 2-5 are objected to because of the following informalities: Claim 2 recites "... room temperature (provided that when heated), and" should read "... room temperature provided that when heated, and". Appropriate correction is required.

Claims 3-5 are dependent on claim 2 and subsumed by the objection to claim 2.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al (US 5, 288, 804).

Kim et al disclose a product comprising a cured blend of two components (abstract). See example 25 wherein the acrylic polyacetoacetate is mixed with aliphatic ketimine and has a gel time of 35 minutes.

Therefore, Kim et al anticipate the instant invention.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 1-2 and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takegawa et al (US 4, 386, 992).

Takegawa et al disclose a two-part adhesive comprising an aqueous emulsion adhesive and a gelling agent (abstract). The aqueous emulsion adhesives have unfavorably low initial bond strength in comparison with organic solvent type adhesives and hence much time is required until sufficient bond strength is achieved (column 1, lines 29-33). The present invention provides an improved aqueous emulsion adhesive in the form of a kit of an aqueous emulsion adhesive and a gelling agent i.e. an improved two-part adhesive (column 1, lines 67-68; column 2, lines 1-2). The gelling agent includes water-soluble organic solvents (column 2, lines 35-41). A polyfunctional epoxy compound may be incorporated in order to improve the heat resistance and water resistance of the bonding. The aqueous emulsion adhesives used in the present invention include

all aqueous emulsion adhesives, for example, polyacrylate and acrylate copolymer (column 4, lines 14-18).

The prior art is silent with respect to gelation time of one hour or less and to a specific combination of acrylic polymer and organic solvent.

However, given that the two-part adhesive comprises substantially similar components as that of the instant invention, one of ordinary skill in the art would have a reasonable basis to believe that the composition would exhibit similar property. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

Even if properties of the two-part composition of instant claims and prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a two-pack composition having the claimed properties because it appears that the references generically embrace the claimed two-pack composition and person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed two-pack composition and the two-pack composition of prior art give rise to unexpected results.

As to the specific combination of acrylic emulsion polymer and organic solvents, the reference teaches a small genus of gelling agents that includes organic solvents. It is held by court that when the reference teaches a small genus which places a claimed species in the possession of the public as in *In re*

Schaumann, 572 F. 2d 312, 197 USPQ 5 (CCPA 1978) and the species would have been obvious even if the genus were not sufficiently small to justify a rejection under 35 U.S.C. 102. See MPEP §§ 2131.02 and 2144.08 for more information on anticipation and obviousness of species by disclosure of a genus.

9. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilkins (GB 1,157,436).

Wilkins et al disclose a cold-curing two-part synthetic resin compositions comprising two parts that can be mixed together and then used in a liquid or semi-liquid condition, which after mixing is set to a hard infusible mass without the application of heat (page 1, lines 11-17). See example 1, wherein Syrup 'A' comprises methyl methacrylate polymer in methyl methacrylate monomer and 2,4-di-methyl-6-tertiary-butylphenol, while syrup 'B' consists of dicyclohexyl phthalate and reads on the plasticizer of claim 4.

The prior art is silent with respect to gelation time of one hour or less.

However, given that the two-part synthetic resin composition comprises substantially similar components as that of the instant invention and is set to hard infusible mass without the application of heat, one of ordinary skill in the art would have a reasonable basis to believe that the composition would exhibit similar property. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

Even if properties of the two-part composition of instant claims and prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make a two-pack composition having the claimed properties because it appears that the references generically embrace the claimed two-pack composition and person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed two-pack composition and the two-pack composition of prior art give rise to unexpected results.

Claim Rejections - 35 USC § 103

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takegawa et al (US 4, 386, 992).

The discussion with respect to Takegawa et al in paragraph 10 is incorporated herein by reference. Furthermore, suitable examples of water-soluble organic solvents are alcohols such as methanol, ethanol and isopropanol (column 3, lines 21-24).

The prior art is silent with respect to specific combination of acrylic emulsion with organic solvents such as alcohols.

However, prior art teaches in the general disclosure that organic solvents include alcohols such as ethanol, methanol and isopropanol which read on hydroxyl group containing organic solvent of claim 6. Therefore, it would have

been obvious to one skilled in the art at the time invention was made to use organic solvents such as alcohols as the gelling agent in the two-pack composition, absent evidence of unexpected results.

11. Claims 2-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (US 5, 288, 804).

Kim et al disclose a cured blend of two components. The components may be premixed in water prior to application (abstract). The compound comprising at least two acetoacetate groups in the first component are usually acetoacetate functional addition polymers. The addition polymers useful for the invention are frequently acrylic containing polymers. The functional group containing monomer for the addition polymer may be epoxy containing monomer. Epoxy containing monomers to be used include glycidyl acrylate (column 2, lines 41-65). The second component for the novel curing system is moisture insensitive monomeric, oligomeric or polymeric aromatic aldimines (column 6, lines 11-13). Examples of useful poly(meth)acryloyl compounds, which may be reacted, with a secondary compound to form a tertiary amine linkage include diethylene glycol di(meth)acrylate (column 7, lines 36-40). The remainder of the monomers for secondary reactive groups containing acrylic polymers are (meth)acrylates (column 7, lines 65-67). The coating composition can be cured at room temperature without an added catalyst (column 8, lines 4-48). See examples 1-15 for a listing of components that can be used to form the first

component and includes acrylates, initiator, organic solvents and epoxy resins. See examples 16-20 for a listing of components used to form second component and includes solvents, plasticizers such as hexanediol diacrylate .

The prior art is silent with respect to the specific combination of organic solvent and an emulsion of acrylate.

However, prior art teaches several examples wherein the second component includes organic solvents and the first component is an emulsion of acrylate polymer. Therefore, it would have been obvious to one skilled in the art at the time invention was made to vary the combination of first and second components, absent evidence of unexpected results.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

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for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
Art Unit 1713

/KR/


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700